

## On four new Palearctic Bat-Fleas in the British Museum collection

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### 1. *Ischnopsyllus hispanicus* spec. nov. (fig. 1).

Close to *I. simplex* Roths. 1906, differing in the terminal segments of the ♂-abdomen and the exposed sclerites of the phallosome. Terminal margin of sternum VIII more oblique than in *I. s. simplex*, the two bristles at the ventral angle and the one at the terminal margin less broadened, on the side an oblique row of four long bristles, there being no bristle between the upper one of this row and the one at the terminal margin; dorsal margin distally rather strongly convex. Sensillum about as long as broad, its posterior margin incurved, the lower angle not produced as in *I. simplex*, not more projecting than the upper angle (Sens). Dorsal margin of body of clasper (Cl) very different from that of *I. simplex* (see figs. 2, 3), being almost evenly rounded, the conspicuous anterior angle and large bristle behind it in *I. simplex* absent in *I. hispanicus*. Manubrium (M) of clasper narrower. Digitoid (F) likewise narrower, nearly as in *I. octactenus* Kolen. 1856. Upper branch of sternum IX (br<sup>1</sup>) distally broader and more rounded; ventral branch (br<sup>2</sup>) convex medianly above and below, narrowed to base and apex. Ventral terminal sclerites of phallosome (Phal) without a hook at the ventral angle (see fig. 3). We have found no differences between the females of *I. simplex* and *I. hispanicus*.

The numbers of spines in the combs are as follows:

Male: 30 24 12 18 15 13 13 11.

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Female: 29 23 7 16 14 12 10 8.

Female: 29 23 10 16 14 13 8 6.

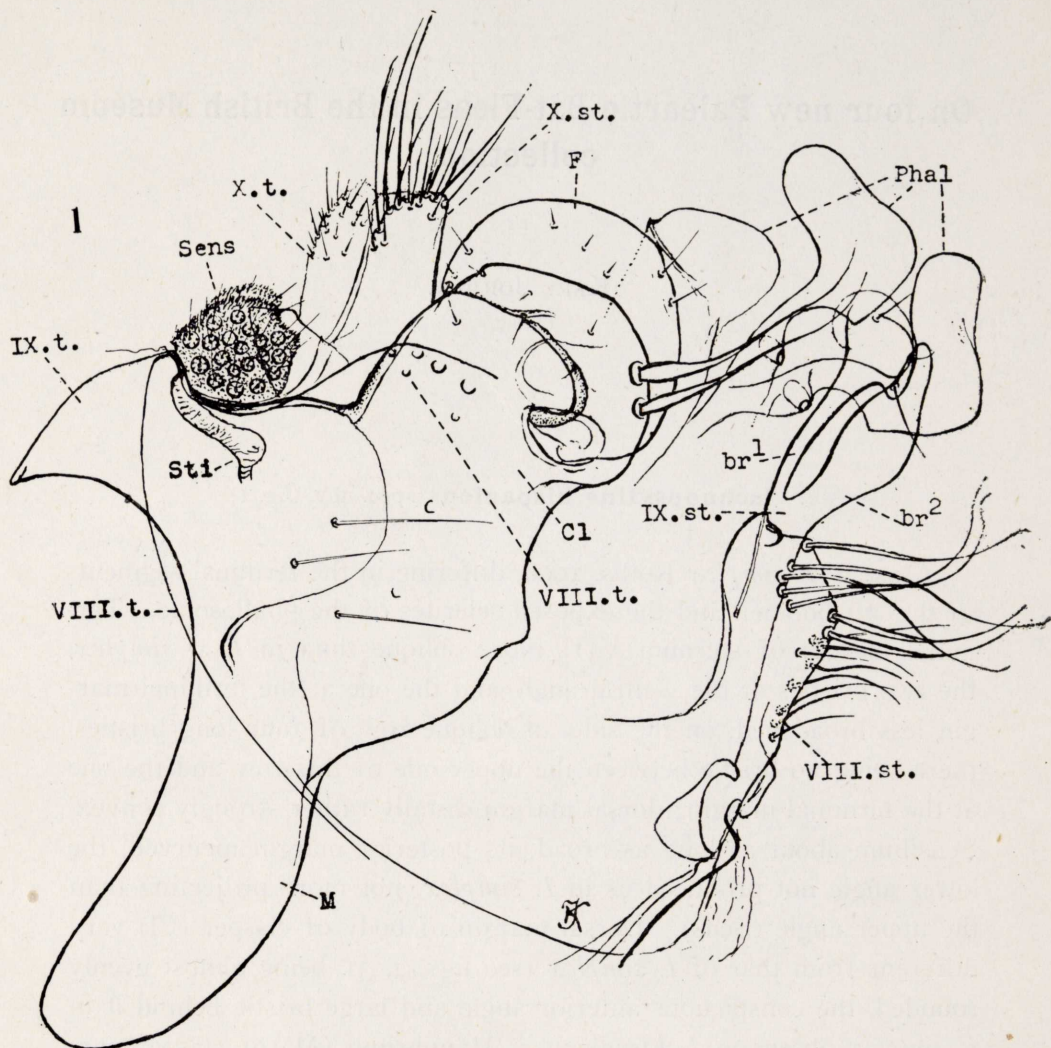


Fig. 1.—*Ischnopsyllus hispanicus* spec. nov.; terminal segments of male.

Sevilla, Spain, on *Myotis nattereri*, 1 male, 2 females (Dr. V. L. Seoane).

2. *Ischnopsyllus simplex mysticus* subsp. nov. (fig. 3).

Likewise differs only in the male. The five males in the collection are distinguished from *I. simplex simplex* by the distal margin of



sternum VIII being strongly oblique and much less incurved below the apical hook, the anterior angle (ac) of the dorsal margin of clasper (Cl) less sclerotized and the hump behind the long bristle broader and higher, the lower branch (br<sup>2</sup>) of sternum IX straight ventrally and at most slightly convex dorsally (usually less convex than in fig. 3),

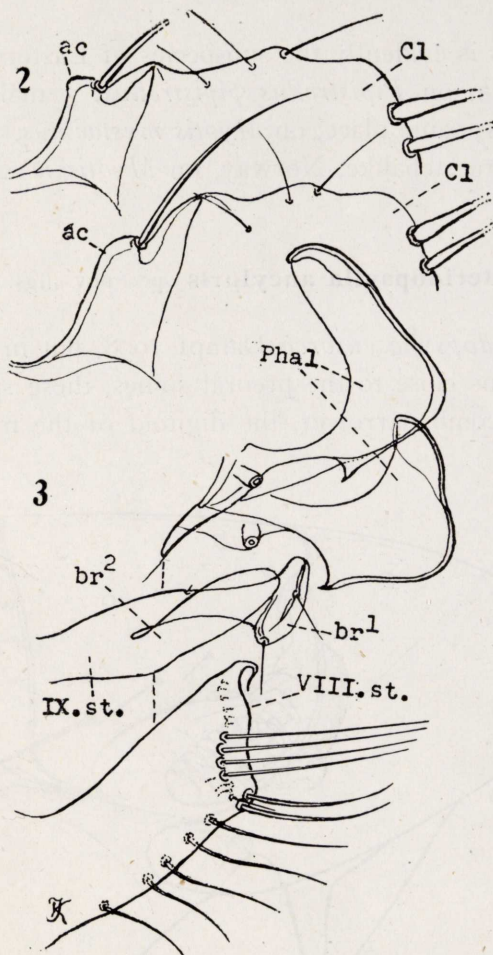


Fig. 2.—*Ischnopsyllus simplex simplex*; dorsal margin of clasper of male.

Fig. 3.—*Ischnopsyllus simplex mysticus* subsp. nov.; terminal segments of male.

and the apical sclerites of the phallosome (Phal) longer (measured from the ventral hook upwards); the shape of these phallites depends on their position on the slide; in several specimens of *mysticus* the distal portion of the phallites is quite narrow, being much more folded than in the type figured; the lower sclerite of type is evidently foreshortened, the two sclerites having the same length if lying side by side.



In one of the five males, found together with the type, sternum VIII has a broadened bristle above the middle of terminal margin as in *I. s. simplex* and a bristle between it and the upper one of the oblique row, and the two bristles at the ventral terminal angle are likewise nearly as broad as in *I. s. simplex*. This specimen, therefore, combines characters of *I. simplex simplex* and *I. simplex mysticus*, being a true intermediate.

*I. s. mysticus* is evidently the subspecies of Eastern Europe.

Wels, Austria, on *Pipistrellus pipistrellus*, 3 males and a small series of females; same place, on *Myotis mystacinus*, 1 male, 2 females (J. Roth); Praestebakke, Norway, on *Myotis mystacinus*, 1 male.

3. ***Nycteridopsylla ancyluris*** spec. nov. (figs. 4, 5, 6).

Near *Nycteridopsylla eusarca* Dampf 1908, but in both sexes the angle of the frons close to the preoral spines, these spines and those of the pronotal comb narrower, the digitoid of the male curved up-

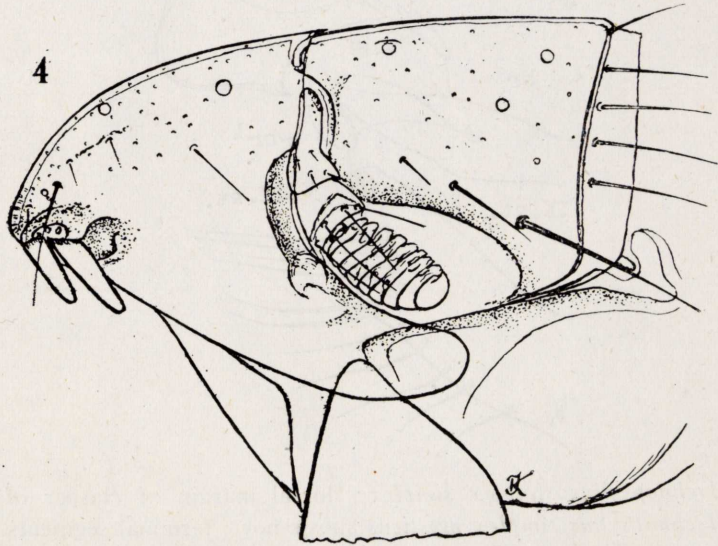


Fig. 4.—*Nycteridopsylla ancyluris* spec. nov.; head of female.

wards as in *N. pentactenus*, sternum VII of the female with lateral sinu around which there is no additional sclerotization, etc.

The single lateral bristle of frons somewhat thinner than the long one above preoral spines; on occiput only 3 bristles above antennal



groove in both sexes (in female of *eusarca* 4 or 5), the anterior bristle smaller than in *eusarca*. Spines in the combs: male 26, 13, 22, 19; pseudocomb on VII, 14; females, 26-28, 14-15, 23-25; pseudocomb on

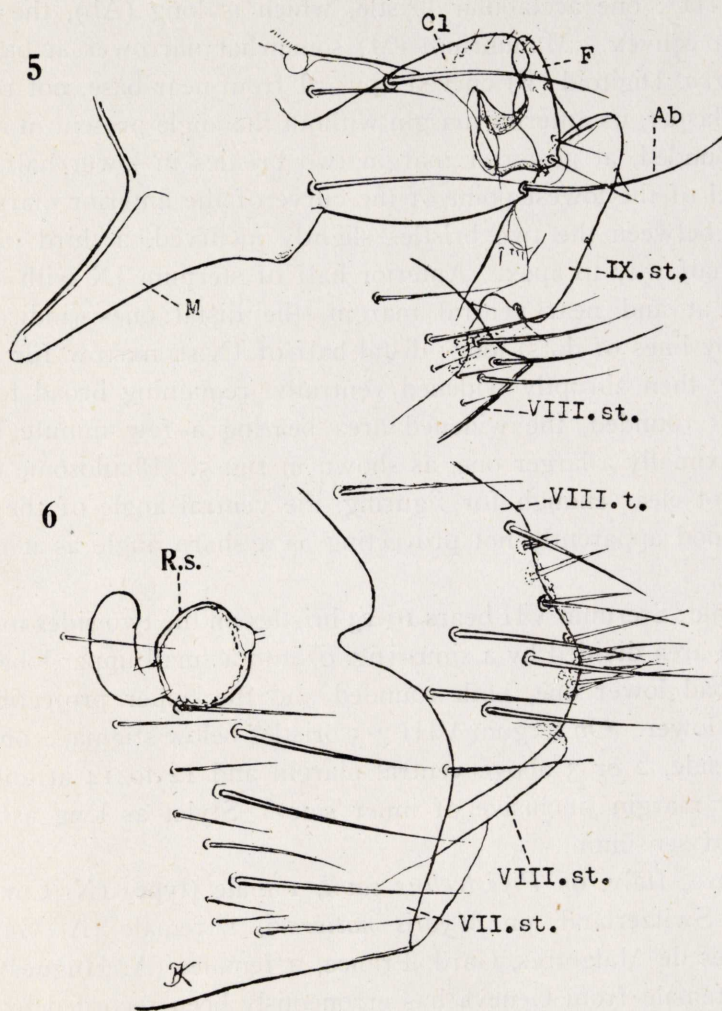


Fig. 5.—*Nycteridopsylla ancyluris* spec. nov.; genitalia of male.

Fig. 6.—*Nycteridopsylla ancyluris* spec. nov.; terminal segments of female.

VII, 12-15. Pronotal spines a little farther apart than in *eusarca* because narrower.

Male: Tergum VIII with 3 bristles, all long, placed as shown in fig. 5, sternum VIII with 8 or 9 each side, some of them short and thin. Clasper (Cl) more strongly constricted than in *eusarca*, the distal portion dorsally as strongly rounded as ventrally, widest distally, dis-



tal margin less deeply incurved than in *eusarca*, the dorsal projection narrower than the ventral one, but like this rounded (on the right side of the specimen there is a long bristle halfway down the distal margin; it is not clear whether it belongs to the clasper or to tergum VIII); one acetabular bristle, which is long (Ab), the margin above it convex. Manubrium (M) somewhat narrower at base than in *eusarca*. Digitoid (F) curved upward from near base, not reaching above clasper, its anterior margin without the angle present in *eusarca*, apex rounded, at posterior margin two bristles in lower half, below the level of the lowest point of the curve of the anterior margin, the margin between the two bristles slightly incurved, a third marginal bristle half way to apex. Anterior half of sternum IX with about 6 bristles at and near ventral margin, the distal ones (indicated in figure by lines of dots) long; distal half of IX.st. narrow for a short distance, then abruptly widened ventrally, remaining broad to apex, which is rounded, the widened area bearing a few minute bristles and proximally a larger one, as shown in fig. 5. Phallosome of specimen not clear enough for figuring, the ventral angle of the dorsal apical hood apparently not projecting as a sharp angle as it does in *eusarca*.

Female: Sternum VII bears 19-23 bristles on the two sides together, its distal area divided by a sinus (fig. 6) into a small upper lobe and a very broad lower one, both rounded and the upper projecting less than the lower. On tergum VIII 3-5 bristles below stigma, 2 on lower area of side, 2 or 3 above ventral margin and 12 to 14 at and near posterior margin (inclusive of inner side). Stylet as long as dorsal margin of sensillum.

Firenze, Italy, on *Pipistrellus savii*, 1 male (type) (N. Cimbali); Geneva, Switzerland, on *Myotis nattereri*, 1 female (A. Ghidini); St. Genies de Malgoires, Gard, France, 2 females (A. Hugues).

The female from Geneva has erroneously been recorded by us as *N. e. eusarca* in 1920.

#### 4. **Nycteridopsylla levantina** spec. nov. (figs. 7, 8).

Only one female known. Near *N. pentactenus* Kolen. 1856, but the second segment of the maxillary palpus much longer, and the posterior margin of abdominal sternum VII entire, without sinus and without additional sclerotization. The slender lateral bristle of frons



(fig. 7), below the stout bristles, as thin as the submarginal one placed above the preoral spines. On occiput above antennal groove 5 stout bristles (2, 2, 1), in *pentactenus* 6 or 7. Segment II of maxillary palpus one-half longer than I (13:8). Pronotum, measured subdorsally, distinctly longer than spines of comb. Number of spines in

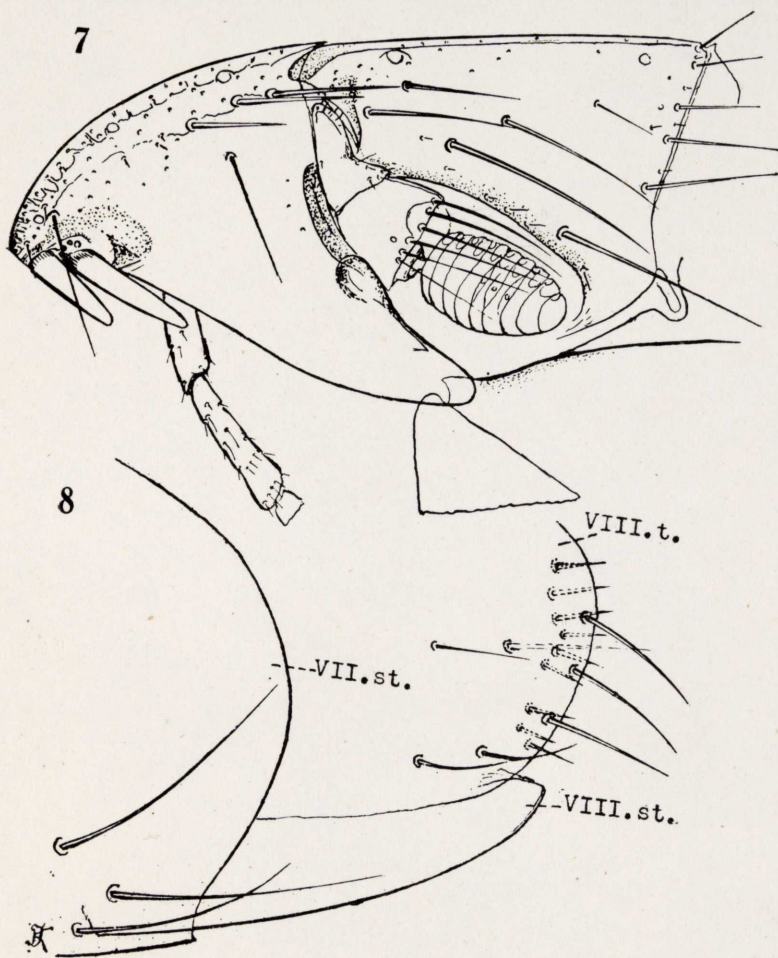


Fig. 7.—*Nyteridopsylla levantina* spec. nov.; head of female.

Fig. 8.—*Nyteridopsylla levantina* spec. nov.; terminal segments of female.

combs: 28, 10, 12, 9, in pseudocomb on VII 15, i. e. fewer spines in 3rd and 4th combs than in *pentactenus*. Abdominal sterna III to VI with 6 bristles on the two sides together, on VII 8; posterior margin of VII round as in fig. 8, ventrally straight for a very short distance, ventral angle about 90°; on tergum VIII, each side, a group of 5 bristles some distance below stigma, on ventral area 2 or 3 lateral ones and at and

near posterior margin on out-and inside together about 20. Stylet as long as its distance from sensilium (in *pentactenus* the distance between stylet and sensilium shorter than stylet); at angle below base of stylet a slender bristle, a shorter one farther forward below the minute sensory cone.

Nicosia, Cyprus, on *Pipistrellus kuhli*, 1 female (Honble. J. Bucknill).